ACS DEPARTURE MODING

1. ENABLE DEPARTURE SWITCH MONITORING FOR ACS MODING

PCS MCS: ACS Moding

ACS Moding

'Departure'

sel PMA2 Departure Response SW Primary NCS - Command
cmd Enable_Arm **Execute**
√PMA2 Departure Response SW Arm Primary NCS - X

sel PMA2 Departure Response SW Primary NCS - Command
cmd Enable **Execute**
√PMA2 Departure Response SW Arm Primary NCS - Blank
√PMA2 Departure Response SW Primary NCS - Ena

sel PMA2 Departure Response SW Secondary NCS - Command
cmd Enable_Arm **Execute**
√PMA2 Departure Response SW Arm Secondary NCS - X

sel PMA2 Departure Response SW Secondary NCS - Command
cmd Enable **Execute**
√PMA2 Departure Response SW Arm Secondary NCS - Blank
√PMA2 Departure Response SW Secondary NCS - Ena

2. VERIFY DEPARTURE EVENT SOFTWARE STATUS

'Departure'

√Departure Event Primary NCS - Blank
√Departure Event Secondary NCS - Blank

3. ENABLE LED MODE INDICATORS

NOTE

Each of the primary and secondary commands turns on two of the four ACS LED indication lights (i.e., 4 total). LED configurations: On - Active Attitude Control, Off - Software is Inhibited, Flash - Station in Free-Drift.

'ACS Configuration'

sel LED Control SW Primary NCS - Command
cmd Enable **Execute**
√LED Control SW Primary NCS - Ena
√PMA2 LED State Primary NCS - Flash

sel LED Control SW Secondary NCS - Command
cmd Enable **Execute**
√LED Control SW Secondary NCS - Ena
√PMA2 LED State Secondary NCS - Flash

Visual verification by orbiter crew that LED Indicators are Flashing (-Z windows).

4. MONITOR AND VERIFY NCS SEPARATION SIGNALS; VERIFY ORBITER DEPARTURE AND POST SEPARATION LED MODE CHANGE

Perform CONFIG C&DH FOR ORBITER UNDOCKING WHILE N1-2(1) PRIMARY, all (SODF: C&DH:), then:

Verify **MCC-H/MCC-M** Go for orbiter departure.

NOTE

1. For flights 2A through 3A, on orbit monitoring of station telemetry is discontinued because interface will be lost at orbiter OIU disconnect.

2. Monitor the change in parameter values during orbiter undocking. At orbiter separation (i.e., Undocking Complete is true and Interface Sealed is false), the attitude control countdown timer is initiated.

3. Monitor the Countdown Timer. The primary Departure Event is received when the Countdown Timer reaches zero. The occurrence of this event prompts the FGB to reactivate its ACS system (this takes approximately 30 minutes).

The following telemetry verification will be conducted via ground control.

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'Departure'

√PMA2 Interface Sealed Primary, Secondary NCS - Blank

√PMA2 Undocking Complete Primary, Secondary NCS - X

√Countdown Timer Primary NCS - (Decreasing from preset back off time)
√Departure Event Primary NCS - X

√Countdown Timer Secondary NCS - (Decreasing from preset back off time)
√Departure Event Secondary NCS - X

5. VERIFY RUSSIAN SEGMENT MODE STATUS

NOTE
This will occur between 0 and 40 minutes following orbiter departure/undocking.

PCS MCS: ACS Moding

ACS Moding

'ACS Configuration'

√PMA2 LED State Primary NCS - On
√PMA2 LED State Secondary NCS - On

√RS Mode Primary NCS - Cntl
√RS Mode Secondary NCS - Cntl

If possible request a visual verification by orbiter crew that LED Indicators are on (-Z windows, approximately 30 minutes after undocking).